

4. The apparatus of claim 2 wherein the distal end terminates with a broken corner so as to produce a smooth transition with the guiding catheter.
5. The apparatus of claim 2 wherein the proximal end of the deflecting catheter is formed with a hemostatic valve, the valve functional for preventing fluids from exiting the lumen.
6. The apparatus of claim 2 wherein the deflecting catheter is one of a size 10 French and a size 11 French.
7. The apparatus of claim 2 wherein the guiding catheter terminates with a tapered guiding tip.
8. The apparatus of claim 2 wherein the guiding catheter is formed with an axial through-hole communicating between the proximal and distal ends of the guiding catheter enabling passage of a guidewire and the delivery of fluids therethrough.
9. The apparatus of claim 8 wherein the guiding catheter is configured on a proximal end with a universal hub having means for receiving a fluid delivery device attached to the guiding catheter.
10. An apparatus for directional guidance of a vascular device into a body lumen, comprising:
 - an inner guiding catheter; and
 - an outer deflecting catheter coaxially and slidably positioned about the guiding catheter, the deflecting catheter being configured with a means for slidably receiving the vascular device from a lateral direction and for axially guiding the vascular device into the body lumen.

11. An apparatus for directional guidance of a vascular device comprising:

an inner guiding catheter; and

an outer deflecting catheter configured with a tubular wall defining an interior lumen such that the deflecting catheter is positioned coaxially and slidably about the guiding catheter along at least a portion of the lumen, the tubular wall having a channel formed therein so as to communicate with the lumen and intersect a distal tip of the deflecting catheter, the deflecting catheter having a relatively long substantially linear proximal portion and a relatively short substantially linear distal portion, the deflecting catheter being further configured with a pre-formed bend of up to about 85 angular degrees between the proximal and distal portions such that the distal portion is angled relative to the proximal portion so as to have a superior aspect, the channel being formed in the superior aspect and being configured to selectively slidably receive the vascular device from a lateral direction and guide the vascular device axially toward the distal tip.

12. A method of directionally guiding a vascular device, comprising the steps of:

terminating a catheter apparatus in a tapered distal end;

forming a longitudinal channel in the catheter apparatus so as to intersect the tapered distal end;

advancing the catheter apparatus along a first body lumen and into a body cavity;

manipulating the catheter apparatus so as to seat the tapered distal end within a second body lumen;

advancing the catheter apparatus within the second body lumen such that the channel is partially positioned within the second body lumen and partially positioned within the body cavity;

advancing the vascular device along a third body lumen and into the body cavity;

locating the distal tip of the vascular device within the channel;

advancing the vascular device into the second body lumen as guided by the channel; and

retracting the catheter apparatus within the first body lumen to leave the distal tip of the vascular device positioned within the second body lumen.

13. The method of claim 12, comprising the further steps of:

configuring the catheter apparatus with an outer deflecting catheter having a tubular wall defining an interior lumen and terminating at a distal deflecting tip and an inner guiding catheter having a distal guiding tip; forming the channel in the tubular wall so as to communicate with the interior lumen and intersect the deflecting tip; and coaxially and slidably positioning the deflecting catheter about the guiding catheter along at least a portion of the lumen so as to form the catheter apparatus;

seating the guiding tip within the second body lumen;

following the step of advancing the catheter apparatus within the second body lumen, retracting the guiding catheter within the deflecting catheter so as to expose the interior lumen to the body cavity through the channel; and

retracting the deflecting catheter about the guiding catheter so as to effectuate retraction of the catheter apparatus within the first body lumen.

14. The method of claim 13, comprising the further steps of:

configuring the deflecting catheter with a relatively long, substantially linear proximal portion and a relatively short, substantially linear distal portion; configuring the deflecting catheter from a plastic having structural memory; forming a bend of up to about 85 angular degrees between the proximal and distal portions such that the distal portion is angled relative to the proximal portion so as to have a superior aspect, the deflecting catheter being biased to the bend by the structural memory of the plastic so as to have a pre-formed orientation; and forming the channel in the superior aspect;

flexing the distal portion relative to the proximal portion about the bend as dictated by the structure of the first lumen as the catheter apparatus is advanced therein; and

returning the distal portion to the pre-formed orientation when the catheter apparatus is advanced substantially into the body cavity such that the guiding tip is positioned substantially adjacent to the second body lumen.

15. The method of claim 13, comprising the further steps of:

forming the guiding tip with a taper; and

advancing the guiding catheter within the interior lumen such that the guiding tip protrudes beyond the deflecting tip.

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16. The method of claim 13, comprising the further steps of:

selecting the body cavity as the right atrium;

selecting the first body lumen as the inferior vena cava;

selecting the second body lumen as the coronary sinus; and

10 selecting the third body lumen as the superior vena cava.

17. The method of claim 16 wherein the vascular device is selected from the group consisting of a catheter, a guidewire, a balloon catheter, and a pacing electrode catheter.

15 18. A method of directionally guiding a vascular device, comprising the steps of:

providing an outer deflecting catheter with a tubular wall defining an interior lumen and terminating at a distal deflecting tip;

forming a channel in the tubular wall so as to communicate with the interior lumen and intersect the deflecting tip;

20 coaxially and slidably positioning a guiding catheter having a tapered distal guiding tip within the deflecting catheter along at least a portion of the lumen so as to form a catheter apparatus;

advancing the guiding and deflecting catheters along a first body lumen and into a body cavity;

25 manipulating the guiding and deflecting catheters so as to seat the guiding tip within a second body lumen;

advancing the guiding and deflecting catheters within the second body lumen such that the channel is partially positioned within the second body lumen and partially positioned within the body cavity;

retracting the guiding catheter within the deflecting catheter so as to expose the interior lumen to the body cavity through the channel;

advancing the vascular device along a third body lumen and into the body cavity;

locating the distal tip of the vascular device within the channel;

5 advancing the vascular device into the second body lumen as guided by the channel; and

retracting the deflecting catheter about the guiding catheter within the first body lumen to leave the distal tip of the vascular device positioned within the second body lumen.



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Claims☒ ABST _____ 1
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